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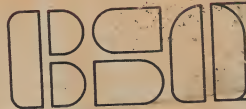




# ANALYSIS SPACE PLANNING



ERGONOMICS  
AND THE VDT/CRT



HOW IS  
SPACE USED? can



CLIENTS'  
COMMENTS

Over the years, much of our work has been repeat business, or referrals from satisfied clients. Some of

Put our experience  
and expertise  
to work for you.

BERNARD SOEP ASSOCIATES INC.

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## CLIENTS' COMMENTS

Over the years, much of our work has been repeat business, or referrals from satisfied clients. Some of them have put their thoughts and comments into writing. We're proud to share some of these comments with you.

### NORTON COMPANY:

"... assignments met successfully, and our various divisions have been more than satisfied. ... professionalism, cooperation, timely response and presentations have been received extremely well; and have been invaluable ..."

Richard T. Seaver, Chief Engr., Facilities

### THE BOSTON GLOBE:

"... plans of highest quality and good taste ... The results ... were a more beautiful, efficient and functional building. The Globe considers the money spent (to be) a worthwhile investment ..."

John P. Guiggio - Vice President & Treasurer

### BATTERYMARCH FINANCIAL MANAGEMENT CORP:

"... commend you and your organization. ... new office extremely pleasant. ... functions extremely well ... exhibited keen sensitivity ... good taste ... attention to detail, and strong commitment to quality control ... looking forward to working with you again ..."

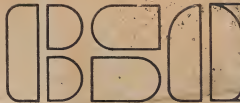
Dean LeBaron - President

### STATE STREET BANK AND TRUST COMPANY:

"... the Soep organization has performed satisfactorily

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## HOW IS SPACE USED?

### HOW IS SPACE USED?

Space is used to house people, goods and services. The use of space is as varied and complex as the people, goods and services it contains.

Therefore, it is the responsibility of the Space Planner to conduct a survey within the client's business. No area can be overlooked and future growth and direction must be of prime concern.

This survey takes a number of forms:

- Interviews with key personnel.
- Interviews with department heads.
- Interviews with selected personnel for specific information.
- Physical survey of existing facilities.
- Physical survey of new premises (if new premises exist).
- Obtaining or preparing plans of the premises as they exist.
- Physical survey and inventory of existing furniture and equipment.
- Budget evaluations.

The information gained from this survey will establish the guidelines uniquely suited to your space requirements.

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## ERGONOMICS AND THE VDT/CRT

Ergonomics, or biotechnology, is the study of the relationship between human beings and machines, especially in terms of physiological, psychological and technological requirements. In other words, how can the working environment make both the person and the machine happy, resulting in the higher efficiency promised by the technology involved?

Solving this problem is one of the major contributions of the Space Planner. It is also what separates the Space Planner from other professionals.

The development of the open plan has more or less coincided with the proliferation of electronics in office and the accompanying technological advances. So the considerations in Space Planning have multiplied in direct proportion to the number of factors involved and the technology used in the space. We have been studying the various elements of space and the increments of an interior environment for many years. The problems we face today are, obviously, quite different from the problems we solved ten, or even five years ago.

The VDT, for example, is becoming as ubiquitous in the office as the typewriter once was, while the typewriter is slowly diminishing in importance. In some cases, people have simply replaced the old typewriter with a new VDT by putting the new unit in the old typewriter desk. This has not always worked well because of the difference in keyboard heights. What was a standard height for a typist's desk, is usually inappropriate for a VDT, whose keyboard is generally lower. If this difference in height is not taken into account, problems can result in the operator's comfort. VDT manufacturers have also not yet standardized their units and as a result, keyboard heights, screen dimensions, phosphor coloration, and overall sizes vary from unit to unit, depending on the manufacturer.

Static electricity was never too much of a problem with the typewriter. It was sometimes an annoyance and could often be "lived with." But not with the VDT. Like all computers, they are sensitive to static electricity, and can suddenly act up if zapped by a charge. This sensitivity makes the selection and specification of proper floor covering materials more important than ever.

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on a number of assignments (with) professional competence and continues to be employed by the Bank."

John K. Benson, Jr. - Senior Vice President

FREDERICKSEAL INCORPORATED:

"... BSA captured it all perfectly when they planned ... my new building. There is no way I can hope to repay the loving dedication to the details each of your people expended ... Perhaps I can (ask) you to direct prospective clients to my attention ... Thanks again for a great job!"

Anthony J. Frederick, Jr. - President

FIRST VERMONT BANK:

"The Soep office has served us well by understanding our people ... needs ... relationships ... work methods and organization. ... Their designs, color sense, knowledge of technology, and their accurate cost projections ... have guided us in the proper direction and saved us money ... very pleased ... and consider the work they have done for us to be of the highest quality and professionalism."

James M. Fish - Senior Vice President & Treasurer

SOMERSET NEWSPAPERS, INC.:

"The service which was rendered ... provided us with certain refreshing and new ideas. These having been incorporated into the plan will tend to increase the smooth flow of people, both customers and employees. We are happy with the results, and certain ... we shall have a much more efficient operation."

Henry B. Reilly, Jr. - Publisher

VERMONT NATIONAL BANK:

"We have been impressed ... by their level of technical competence, ability to understand and interpret our building needs, cost estimate accuracy, (and) the ease with which we have been able to work together ..."

John Hunter, Jr. - President

We have also been studying the image on the screen itself and the problems associated with it. The most common problems are glare and reflection and background and surface brightness. If you were to operate a VDT, you would be looking at the screen and the keyboard as part of your work. You would also be looking, perhaps, at some reference work, the surface in front of the unit and the area behind and to either side of the unit. Your field of vision, then, encompasses not only the screen and keyboard, but also the entire space in which it's located. The entire work environment, therefore, becomes part of our study and must be carefully controlled and designed if the operator and the machine are to both be happy.

The terminal must be mounted at the correct height. The operator must be seated on a proper chair at an appropriate height, both for the operator and for the keyboard. The work surface and adjoining horizontal planes must be of non-reflective material, in a color which is restful to the eyes and not in contrast with adjacent areas. The lighting must not reflect on the screen's surface, or cause glare or reflections on the work surface. But it must provide sufficient light levels and be efficient in terms of lumen output as well as conservation. This calls for an extremely efficient fixture with no visible light source.

We have found that in most cases, a totally indirect lighting system is the most efficient, most comfortable and the most economical solution to all of the problems inherent in the VDT environment. The properly designed indirect lighting system provides the required light level, with minimal visible light source, even, shadow-free illumination, and an efficient use of energy and money.

We have also found coated filters, which when added to VDT screens, eliminate a tremendous amount of reflections, no matter what kind of lighting is present in the area.

Flooring, typing height, static electricity, lighting reflections - all symptoms of the electronic age - and all are considerations taken into account in the planning and design of the total work environment.

It is the major responsibility of the Space Planner to address and solve these problems.

We know we're on the right track.



## DESIGN BUDGETING

### BSA WHEN TO THINK OF SPACE PLANNING

#### WHEN TO THINK OF SPACE PLANNING

It would not be facetious to say "all the time" because so many businesses have continuing space problems brought on by new products, change of methods, additional personnel, new equipment or acquisitions.

The times when Space Planning really is indispensable are:

- When a new building is contemplated.

The Space Planner will analyze and evaluate your needs, establish building requirements and prepare the program for the Architect.

- When you plan to relocate.

The Space Planner  
with you  
location  
Space  
C

**Hy Shaffer**

COMMUNICATIONS/MARKETING

SPACE PLANNING

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## DOCUMENTATION SUPERVISION

### BSA SPACE ANALYSIS REPORT

### BSA LANDSCAPE: ANALYSIS REPORT

### BSA THE FEE

There should never be a question about our fee.

BSA has a  
program for you.

DESIGN  
BUDGETING

"Space is  
expensive ...  
use it wisely."  
BSA

**Hy Shaffer**

COMMUNICATIONS/MARKETING

SPACE PLANNING

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## BSI THE FEE

There should never be a question about our fee.

Very simply, our fee is always a "not-to-exceed" figure, based entirely on how long it will take to perform a given task on each part of a program. Once we've analyzed the process of performing the job, and we have estimated the number of hours and people involved, we can quickly project how much that work is worth in terms of our hourly rates.

The fee determined by this method is presented to you as a "not-to-exceed" fee, based on multiples of time, and nothing else.

To us, it's important that the client be well aware of how our fees are determined and presented. It's important that the distinction be made clearly. Our fee has nothing whatsoever to do with budget, the cost of furniture or construction, nor anything else. Just time.

We learned a long time ago that when the fee is related to the costs of construction or furnishings, it's impossible to set a limit on it, because costs and add-ons can accumulate as the job moves along, and the fee must be adjusted accordingly.

In addition, the possibility exists for the designer to build up the job, increasing their fee.

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## BSI SPACE ANALYSIS REPORT

This report documents the space requirements at your present or future site. The requirements are presented in square foot form, developed through the compilation and analysis of all available data relative to the existing and projected space needs of your organization. These projections are usually made in five year increments.

Space Use Standards are developed, relative to specific work functions, and are included in the report. These standards indicate the ideal space allocation for each function, without regard to existing conditions, and are the basis for most calculations used throughout the report.

The reports are structured to permit easy modification of its contents, should unforeseen events demand revisions in either organization or in growth projections.

### SURVEY OBJECTIVES

1. To obtain and analyze personnel and equipment needs through \_\_\_\_\_ year and translate this data into increments of space.
2. To develop space requirements for clients unique operations through \_\_\_\_\_ year.
3. To clearly define existing departmental sizes and projected growth by personnel, equipment and space.
4. To determine departmental locations and adjacencies.
5. To determine size standards for all work categories occupying space.
6. To present general recommendations for each department, and by extension, for the total organization.
7. To determine, where required, location and/or size of additions to building.
8. To project, where required, need for other facilities.

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## BSI LANDSCAPE: YES or NO?

In the early 1960's, the Quickborner Team from Germany arrived at a method of physically implementing their work flow analysis and recommendations in an office environment.

The furniture plans resulting from their studies resembled a flow-chart more than it did an office. Desks were arranged in groups and clusters, and the clusters were shielded from distracting views by means of movable screens, plants, and the angle at which they were located in relation to adjacent groups.

The furniture groupings "flowed" through the space in a loose, free-form arrangement, facing this way and that, with curving aisles, arbitrary orientation, and with little relation to the structure.

The plan was called "Office Landscape." And the office as we know it, was never to be the same.

Office Landscape has radically changed the furniture industry in America. At first, the idea was to put wheels on everything or to buy screens and plants.

Today, every major furniture manufacturer in America sells some type of Office Landscape furniture, moving panels with cantilevered work surfaces, shelves and cases, in enclosures for "standard" furniture, or free-standing, self-contained units.

Lighting is now being incorporated into the furniture system, as are electrical, telephones and electronic wiring capacities.

Although the Office Landscape, or "System" furniture has been on the Market for fifteen or more years, we're still asked by business management, whether it should be used or not.

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To us, it's to everyone's best interest to set a "not-to-exceed" fee at the outset, and then earn it by being free to find the best solution to a given problem, not just the most expensive one. We earn our fee by saving our clients money, initially and long range. We consider this to be one of the most important functions of the Space Planner.

Our answer to this continuing question is very simple. The Open Office, or Landscape, is one, just one of the ways to plan an office. It is not always "right," nor is it always "wrong."

Countless magazine articles, books, and so forth, have been written about the idea of the Open Office, and there is still no consensus on its merits and suitability.

Despite many tests and an increasing number of completed installations, the question "Is open office planning really successful?" remains open for dispute. If it is a sound approach, why is it not universally accepted? If it is unsound, why is it still discussed?

To us, it seems that open planning is sound when it solves the problem, unsound when it does not.

And it is still being discussed because it is a still relatively new concept and because many people, despite wanting to be current in their thinking, still resist change. Even change for the better.

The answer, for any client, lies in the survey and analysis of an organization. The problem always suggests the solution.

#### METHODS AND PROCEDURES

The report is the result of a survey and analysis program which is organized as follows:

1. A coordinator is appointed by the client to arrange meetings and obtain specific data. Memoranda is sent to all department heads advising them of the survey and the information desired.
2. Organizations charts, personnel rosters and job classifications are obtained.
3. Facility plans are obtained and checked against existing conditions. If not available, plans are developed through on-site inspection and measurement.
4. Selected personnel are interviewed regarding:
  - a. Company objectives and philosophy.
  - b. Future personnel and equipment requirements.
  - c. Departmental interaction.
  - d. Work flow.
  - e. Internal communications.
  - f. Conference and meeting room requirements.
  - g. Internal procedures.
  - h. New services required.
  - i. Long term goals.
5. Existing personnel equipment and work stations are surveyed.
6. Based on data thus compiled, space use standards, where applicable, are developed for typical work stations.
7. Space allowances are calculated for areas not considered standard.
8. The report is compiled, stating the client's space requirements through \_\_\_\_\_ year using present and/or new site.